Rise Advisors

Guide to Working Capital Management

Disclaimer

The information in this guide is general in nature; on working capital management matters in a broad sense. Consult your Rise CPA office in order to receive specific advice appropriate to your specific situation.

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Welcome to the Rise Advisors Guide to Working Capital Management

Our mission at Rise Advisors is to guide you on your journey to Absolute Financial Performance. This success can be achieved through the design and execution of policies that create the Highest Leverage of your operations and competitive environment. The Rise Advisors Guide on Working Capital Management is dedicated to the development of High Leverage Working Capital Policies. This advice is designed to achieve your highest Return on Equity and Optimum Working Capital Balance, two keys to Absolute Financial Performance.

Working Capital – A Vital Sign of Company Health

Working Capital is a vital sign of company's health. If cash is the life blood of a company working capital is the pressure of the blood flow. Like blood pressure in a body, it cannot be too low and being too high is a sign of trouble as well. When working capital is too low, a company is unable to meet its current obligations when they come due. When working capital is too high, a company is not operating efficiently. Working capital needs to be within an optimum range for a company to survive and thrive.

By definition, working capital compares current assets to current liabilities. Current assets are those that are used or turnover within a year. Cash, Marketable Securities, Accounts Receivable, Inventories and Prepaid Expenses fall in the Current Asset category. Current liabilities are those that are due and payable within a year. An Operating Line of Credit, Accounts Payable to vendors, Indirect Taxes (GST, PST), Corporate Tax Installments, Current Portion of Lease Payments and Current Portion of Long-Term Debt Payments fall in this category.

When a company has more Current Assets than Current Liabilities, they have working capital. Having working capital means that a company can use their current assets to more than pay their current liabilities when they come due. A company with working capital is solvent and those without working capital are insolvent.

Working capital is one of those measures like Sales, Net Income and the Debt to Equity Ratio that gets attention. These stakeholders include vendors, banks, insurance companies, leasing companies, licensing agencies and bonding companies. This gets so much attention because, like blood pressure, a company's working capital is such a broad indicator of issues that can affect performance. Working capital has unique characteristics from industry to industry and from one company to the next. The unique characteristics are the basis for the design of the High Leverage Policies that are used to manage your company's working capital.

Working Capital & The Length of Sales Cycles

The first step in defining the characteristics of a company's working capital is an understanding of the length of their sales cycle. Generally speaking, companies operate in either a short, medium or long sales cycle environment. The shorter the length of the sales cycle, the lower are the current asset and liability account balances relative to a company's sales and net income.

Companies such as restaurants, gas stations, and grocery stores operate in a very short sales cycle environment. Sales are initiated, orders are filled and cash comes in throughout the day. Inventories turn over fast and there are few if any Accounts Receivable. Operating lines, if there are any, and Accounts Payable to vendors turn over quickly.

At the opposite end of the spectrum are project construction companies with sales that can take weeks, months or years from start to finish. Accounts Receivable and Inventories can reach high levels. Draws on operating lines are linked to the volume of Accounts Receivable.

Between these two opposites are distribution companies that fill orders from stock, and manufacturing companies that build for stock or produce the products that are needed to fill sales orders. Accounts Receivable, Inventories and Accounts Payable turnover faster than those in Long Sales Cycle companies. Mid Length Sales Cycle companies can be in and out of their Operating Line of Credit.

In proportion to their sales and net income, the short sales cycle companies will carry the lowest balances in their current asset and current liability accounts. The account balances should be turning over quickly. When turnover slows down it is an indication of trouble. For mid length sales cycle companies, the balances in the working capital accounts will turnover more slowly than the short cycle companies, but they should still turnover within a tight range.

The speed of current account balance turnover is not as predictable for long length sales cycle companies. Turnover is project dependent and requires a higher level of management attention to keep all of the working capital accounts in line and the working capital balance positive.

Sales cycle length tells managers what their current asset and liability account turnover rates should be. The “should be” turnover rates become the KPIs (Key Performance Indicators) that are monitored by each individual and team that works the accounts. These teams include, the Billing and Accounts Receivable team, the Purchasing and Inventory control team, the Project Control team and the Accounts Payable team.

Working Capital Quality & Working Capital Ratios

Technically speaking working capital is a liquid reserve that a company has available to deal with contingencies and uncertainties. The working capital available can be expressed as an amount or as a ratio. Subtracting current liabilities from current assets gives us the amount. The ratio is equal to current assets over current liabilities. This is called the Current Ratio. The higher the working capital amount and current ratio the greater the capacity a company has available to deal with contingencies and uncertainties.

The Current Ratio = Current Assets / Current Liabilities

The Current Ratio is an indicator of the margin of safety available to cover any shrinkage in the value of current assets such as uncollectable Accounts Receivables, and the write down Inventory that is stale, dated, or obsolete. The Current Ratio conveys the degree to which current assets are available to cover every $1 of short-term debt. A high current ratio is needed for companies that cannot borrow funds on short notice.

In general, a healthy Current Ratio is in the range of 1.5:1 and 2:1.

A healthy Current Ratio is step one in the measurement of working capital quality. Step two is the measurement of liquidity. The Quick or Acid Test Ratio is used to test liquidity.

The Quick or Acid Test Ratio = (Cash + Marketable Securities + Accounts Receivable) / Current Liabilities

The Acid Test Ratio eliminates Prepaid Expenses because they cannot be converted into cash and Inventories that cannot be converted to cash quickly.

An Acid Test Ratio of 1:1 is the rule of thumb.

A quick ratio of less than 1:1 indicates a deteriorating liquidity position and a lower capacity to make short term debt payments or borrow funds on short notice if a company needs them.

The most conservative test of the liquidity of a company's working capital is the Cash Ratio.

The Cash Ratio = Cash + Marketable Securities / Current Liabilities

Companies operating in a short sales cycle environment should have higher Cash Ratios than companies in medium and long sales cycle environments. Short sales cycle companies accumulate cash quickly, pay their vendors faster and carry a lower proportion of Accounts Receivables and Inventories.

The beauty of these ratios is how easy they are to calculate. Incorporating them into your monthly reporting routine is quick way to monitor the quality of your working capital position.

Working Capital's Relationship to Other Accounts

After its initial startup, a company generates working capital from its operations. The Working Capital Provided from Operations and the Working Capital Balance are used to determine a Company's Optimum Working Capital balance.

We can determine the Optimum Working Capital balance by relating Working Capital Provided from Operations and Working Capital to Sales, Total Assets, Net Income and Total Liabilities.

<u>These are the equations and ratios involved:</u>

- **Working Capital** = Current Assets – Current Liabilities
- **Working Capital / Sales**
- **Working Capital / Total Assets**

Working Capital Provided from Operations = Net Income + Non-working capital expenses (depreciation, amortization) - Non-working capital revenue (amortization of deferred revenue)

Working Capital Provided from Operations / Net Income
Working Capital Provided from Operations / Total Liabilities

ABC Company reports the following information on its financial statements:

Working Capital Provided from Operations	$300,000
Sales	$9,000,000
Net Income	$900,000
Total Assets	$5,850,000
Current Assets	$2,700,000
Current Liabilities	$1,500,000
Non-Current Liabilities	$1,800,000

The ABC Company balances and ratios are:

		Industry Average
Working Capital	$1,200,000	$3,300,000
Working Capital Provided from Operations / Total Liabilities	9.1%	30.5%
Working Capital Provided from Operations / Net Income	33%	50%
Working Capital / Sales	13.3%	40%
Working Capital / Total Assets	20.5%	60%

Our analysis indicates that ABC Company is not performing with an Optimum Working Capital balance.

ABC Company shows poor liquidity as the Working Capital Provided from Operations / Total Liabilities is low. The Working Capital Provided from Operations is insufficient to meet total debt.

ABC Company is profitable, but its low Working Capital to Sales Ratio indicates that it is using more Working Capital than it should be to generate Sales. Perhaps Accounts Receivable, Inventory or Accounts Payable need better management.

ABC Company has less Net Income backed by liquid funds than other companies in the industry. ABC's liquidity rating will be higher with a higher ratio of Working Capital Provided by Operations to Net Income.

Working Capital & Company Partners

Companies do not operate in a vacuum. Companies operate in concert with other companies. The relationships that form between companies working together are like partnerships, regardless of there being no formal partnership agreement in most cases.

The granting of credit comes up early in the discussions between companies when they are deciding to partner with each other. Credit worthiness is one of the key criteria for partnering. Companies with a strong working capital position are more credit worthy than companies with a weak working capital position.

The partnering of companies functions like a chain. A chain is only as strong as its weakest link. When one or more of the partners in the chain are in a weak working capital position the entire chain is compromised. The chain of companies working together will not be able to safely carry the optimum levels of credit required to achieve peak performance. The concern over doing business with a weak link partner is the reason why working capital is scrutinized so closely.

A dramatic example of working capital scrutiny are the considerations involved in large scale construction projects. Let's take the example of a large-scale project with an Owner and a Proponent who has brought together a group of companies to perform the various elements of the project Scope of Work. BC Hydro's Site C dam and LNG Canada are projects that fit this description. The working capital considerations involved are:

- The Proponent assesses the Owner's working capital position to determine their capacity to fund the project.
- The Owner assesses the Proponent's working capital position to determine their capacity to perform the project. The assessment involves financial institution references and the examination of historical working capital performance and references from large customers and vendors.
- The Owner requires that the Proponent put up a project performance bond. The surety company that is putting up the bond makes its own assessment of the Proponent' working capital position before issuing the bond.
- The Proponent and all the sub-contractors that the Proponent has engaged need contractor's licenses in the project jurisdiction. The licensing agencies will require that each licensed company carry a minimum amount of working capital.
- The Proponent assesses the sub-contractors working capital position for capacity to perform and the sub-contractors assess the Proponent' working capital position for capacity to pay. The assessments involve financial institution references and the examination of historical financial statements and credit references from vendors.
- The Proponent is leasing equipment to be used on the project. The leasing companies makes their assessment of the Proponent's working capital position before granting the leases.
- The Proponent has an operating line of credit in place with a financial institution (FI). The operating Line of credit is secured by a general security agreement and an assignment of book debts. The limit on the operating line is based on the quality of the Proponent's accounts receivable and the aging of the accounts receivable. The FI will make its own assessment of the quality of the customers on the Proponent's accounts receivable listing (their investment grade status). The FI and the Proponent have agreed to a covenant that stipulates that the Proponent's working capital ratio will not go below 1.5:1.

This scenario illustrates the role that working capital plays in a company's interaction with the companies that it partners with. The effective management of working capital requires High Leverage Internal Policies and keeping tabs on the working capital of the companies that you decide to partner with.

Managing Working Capital Accounts

The categories of current asset accounts and current liability accounts varies from one company to another. As a rule, companies operating in a short sales cycle environment will have fewer account categories than companies operating in mid-length and long sales cycle environments. A company needs to manage each of its current asset and liability account categories effectively to maintain the working capital position required to achieve its absolute financial performance.

Current Asset categories may include Cash, Marketable Securities, Accounts Receivable, Inventories and Prepaid Expenses. The Current Liabilities category may include an Operating Line of Credit, Accounts Payable, Indirect Taxes Payable, Income Taxes Installments Payable, Current Portion of Leases Payable, and Current Portion of Long-Term Debt Payable.

The degree of effort and skill required to manage each category varies from one category to another.

Prepaid Expenses, Income Tax Installments Payable, Current Portion of Leases and Long-Term Debt Payable do not require a lot of attention. They are generally dealt with in a short period of time on a monthly basis.

The categories in the Cash Conversion Cycle – Accounts Receivable, Inventory and Accounts Payable need daily attention.

Managing Accounts Receivable starts with credit granting policies. Policies that are too lax increase the risk of write-offs. Polices that are too stringent can limit sales. Converting credit sales to cash quickly requires an efficient billing process. The shorter the time between filling an order and issuing an invoice the better. In some industries, collection follow-up may be required to complete the cash conversion cycle.

Inventory can be the most demanding category to manage. When a company has the wrong mix of Inventory it will lose sales due to stock-outs and have write-downs on aged-out or obsolete stock. Inventories that cannot be converted to cash can build up in service companies, manufacturing companies and construction companies.

Manufacturing companies can have the wrong mix of all three inventory categories: raw materials, work in process, and finished goods. To remedy this situation, replenishment models can be used to synchronize inventory levels with sales demand.

Service companies and construction companies can have trouble with runaway Work in Process where a scope of work takes longer than forecasted or outside delays are encountered.

Managing Accounts Payable takes more time and attention when products and services are delivered to multiple locations, when many vendors are involved, when products and services are imported and when purchases are made in foreign currencies. Processing and paying vendor invoices according to negotiated payment terms is important to maintain the relationship that companies have with their vendors.

Managing an Operating Line of Credit takes an eagle eye view of all the account categories in a company's working capital mix. An Operating Line may be secured on a cash balance offset basis or margined on a percentage of Accounts Receivable or Inventory. The balances need to meet a quality-criteria to satisfy the lender's requirements. An Operating Line of Credit will also be tied to a minimum working capital ratio covenant, say 1.5 to 1 that needs to be met usually on a quarterly basis.

Finally, there is the most liquid of the working capital categories – Cash and Marketable securities. Managing Cash and Marketable Securities becomes more complex as the dollar amounts involved increase. Companies that accumulate cash over a period and then need to use it to ramp up production or fund growth can invest the cash in short term vehicles such as GICs (Guaranteed Investment Certificates).

Optimum Working Capital Targets

Every company has a working capital range that is optimal for their operations. A company is at risk of insolvency when their working capital balance is below their optimal range. When the working capital balance is above the optimal range, they are not operating as efficiently as they could be.

The more working capital a company has on its balance sheet, the more resiliency there is to deal with uncertainties and contingencies. The question is – How much resiliency is enough?

Resiliency is the length of time a company can continue to pay its operating costs and other current liabilities without generating sales. Operating costs will include operating expenses including wages, income tax payments as well as principle and interest due on any debt that the company carries.

A company can calculate the monthly amount of their operating costs and then decide how many months of these costs that they want to cover with working capital. This will give them their Internal Working Capital Target. The Internal Working Capital Target may satisfy the company's internal resiliency threshold, but it may not satisfy the company's partners' threshold.

Company partners are not as concerned as much about the amount of the work capital as they are with the current ratio (Current Assets / Current Liabilities). For example, Partners may want to see a Current Ratio be no less than 1.5 to 1. Financial Institutions will set the Current Ratio they require in their rules of credit. The Financial Institution requirement is usually conservative enough to be accepted by the other company partners.

Here is an example of an Optimum Working Capital calculation:

ABC Company		Internal Current Ratio	External Current Ratio Required	
Current Assets	$4,000,000			$4,500,000
Current Liabilities	$3,000,000			$3,000,000
Working Capital	**$1,000,000**	**1.33 to 1**	**1.5 to 1**	**$1,500,000**
Monthly Expenses		**2 Month Resiliency Threshold**		
Wages	$250,000	$500,000		
Operating Costs	$200,000	$400,000		
Tax Installments	$ 25,000	$ 50,000		
	$475,000	**$950,000**		

In the above scenario, ABC Company has more than enough working capital to covers its resiliency threshold. However, the company Partners require a higher current ratio. ABC Company will need to add $500,000 in Working Capital to meet the external current ratio requirement.

When Working Capital is Too High

A company can find itself in a working capital position that is too high. Too much working capital is, at a minimum, a sign of inefficiency, and at worst, a threat to the company's cash position and solvency. A company has too much working capital when it's working capital balance is significantly higher than its internal working capital target and it has a higher current ratio than its external partners require.

If the excess working capital is due to a buildup of cash, there is no threat to a company's solvency. The excess cash is simply a redundant asset that is not needed to fund day-to-day operations and growth opportunities. Keeping the cash on the balance sheets make the company more resilient to uncertainties and contingencies, but the argument can be made that the excess cash should be distributed to shareholders.

The more concerning issue is a working capital balance that is too high due to a buildup of inventories. When inventories grow and the rate of turnover slows, there is a negative effect on cash flow. An excessive buildup of inventory can threaten a company's solvency.

There are several factors that can result in a buildup of inventories:

SKU Management

Overtime adding SKUs (Sequential Stocking Units) to a company's offering can cause a buildup of finished goods inventory.

The more SKUs a company offers, the harder it is to forecast demand for each SKU. If the company does not have an effective replenishment model to match SKU production or purchases with SKU demand, inventory is likely to build up.

For various reasons, companies do not like to lose sales due to stock-outs, so there is a tendency to produce or buy a safety stock amount for each SKU. The more SKUs, the more safety stock, the more safety stock, the higher the overall inventory investment.

Slow-moving SKUs create a drag on the company's overall inventory turnover rate and the total investment in inventory grows too high.

Billing Management

Work in Process Inventory builds up when companies who perform time and equipment work or project work have trouble processing their billings to customers on a timely basis. Billings for this kind of work are often complex and go through several levels of review and approval before they are issued. To remedy this situation, companies need to design High Leverage policies and procedures to accelerate their billing process.

Weak Production and Project Management Processes

If the policies and procedures are inefficient in a manufacturing or project management setting, work in process inventory will build up. When work is not performed efficiently re-work and extra materials find their way into the work in process balances.

When a company's current ratio and working capital balance is well beyond their optimum working capital balance, the first thing to look for is an increase in inventories and a slowdown in the rate of inventory turnover.

At Rise Advisors we serve thousands of owner managed companies. We draw on our 40 years of experience to help you design the High Leverage Working Capital Policies that you need to achieve Your Highest Return on Equity and Optimum Working Capital Balance.

Call or email us at Rise Advisors to book a review of your Working Capital policies.

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